

Work Order ID 80266

80266

Page 1

February-15-12 3:35:52 PM

Item ID: D3562-042 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Assembly, RH
 Start Date: 15/02/2012 Start Qty: ~~4.00~~ 3 ***4*** Cust Item ID:
 Required Date: 29/02/2012 Req'd Qty: ~~4.00~~ 3 ***4*** Customer:
 Reference:

Approvals: Process Plan: M.C.S Date: 12/02/16 Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3562 | Rev E |

100 0.00
100 Large Fab
 Large Fab Memo 0.00
 Large Fab 1-Cut D2622 extrusion as per Dwg D3562
 2-Deburr and bevel ends for welding

Al 12.03.15 (X4)

110 0.00
110 QC6- Inspect dimensions to drawing
 QC Memo 0.00
 Quality Control

SL 12.03.15 (4x)

120 0.00
120 Chemical Conversion Coat per QSI005 4.1
 HandFinish Memo 0.00
 Hand Finishing

SL 12.03.16 4 ϕ

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|----------------------|---------|----------|--------------|---------------|---------------|------------------|----------------|
| 130 *130* QC Quality Control | QC3- Inspect Part Finish Memo | 0.00 0.00 | SB | 12/03/16 | | (4) | φ | | |
| 140 *140* Small Fab Small Fab | Small Fab Memo 1- Drill Rivet holes as per dwg D3562. Touch up alodine 2- Rivet legs using Magnabond as per dwg D3562. *****Ensure to wipe off any excess magnabond ***** A/R Magnabond 6398 Batch: 1206dd | 0.00 0.00 | | | | 4 | φ | | |
| 150 *150* QC Quality Control | QC5- Inspect part completeness to step on W/O Memo | 0.00 0.00 | | | | | | | 12 03 19 (3) |

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February-15-12 3:35:52 PM

80266

Page 3

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|----------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 160 *160* Large Fab | Large Fab | 0.00 | | | | 3 | 0 | | |
| Large Fab | Memo 1-Weld end caps as per Dwg D3562& QSI 004. Inspect for foreign objects as per QSI 024. A/RAluminum Rod <u>119785</u> 2-Grind end cap welds flush as per Dwg D3562 | 0.00 | | | | | | | |
| | | | | | | | | | |
| 170 *170* QC | QC10- Inspect visual per QSI004- ground welds | 0.00 | | | | | | | |
| Quality Control | Memo | 0.00 | | | | | | | |
| | | | | | | | | | |
| 180 *180* QC | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| Quality Control | Memo | 0.00 | | | | | | | |
| | | | | | | | | | |

→ Ae 12.03.20

S 26/3/26

S 26/3/26

23
24

Dart Aerospace Ltd

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Page 4

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--|--|----------------------|---------|---------|--------------|---------------|---------------|-----------------------|----------------|
| 190 *190* HandFinish Hand Finishing | Chemical Conversion Coat per QSI005 4.1 Memo | 0.00 0.00 | | | | 3. | | 412.3.26 | |
| 200 *200* Powdercoat Powder Coating | White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo START TIME: 8:45 OVEN TEMPERATURE: 320°F FINISH TIME: 9:15 | 0.00 0.00 | | m120222 | | 3 | | 29 12/03/27 | |
| 210 *210* HandFinish Hand Finishing | Wing Walk as per dwg QSI005 4.4 Batch Memo | 0.00 0.00 | | M120959 | | | | Ph => 3X/m-f 12/03/27 | |

Dart Aerospace Ltd

| W/O: 80266 | | WORK ORDER CHANGES | | | | | |
|------------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: D3562-042 PAR #: Fault Category: Finishing NCR: Yes No DQA: Date: 12/04/09
12-1333 Resolution: Re-work Disposition: Re-work QA: N/C Closed: Date: 12/4/10

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| 12/03/27 | #200 | Magnabonds come through the PLC PLC Process | 12/03/27 | scuff complete wks with 320 grit paper wash with thinner | 12-3-27 12-3-27 | 12/03/27 (X) | 12/03/27 | 12/03/27 |
| | | | 12/04/2 | Re PLC as per 052005 Start 10h45 temp 320°F Pin 11h15 | (2) (DA) 12/03/27 | 12/03/27 (X) | 12/03/27 | 12/03/27 |
| | | | | temp | | | | |

NOTE: Date & initial all entries

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Page 5

February-15-12 3:35:52 PM

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 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 220 | QC3- Inspect Part Finish | 0.00 | | | | | | | |
| *220* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 230 | Identify as per dwg & Stock Location: <u>G-A</u> | 0.00 | | | | | | | |
| *230* | | | | | | | | | |
| Packaging | Memo | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |
| 240 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *240* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

3BH 4 JU 12/03/27

12/04/04 (3)

12/4/428

12-04-41

| W/O: | | WORK ORDER CHANGES | | | | | |
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

February-15-12 3:35:55 PM

Page 1

Work Order ID: 80266

80266

Parent Item: D3562-042

D3562-042

Parent Item Name: Step Assembly, RH

Start Date: 15/02/2012

Required Date: 29/02/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM
 IPP rev B ECN 987 07.10.09 EC verified by: DD
 IPP Rev:C ECN1048 07-12-18 DD verified by: EC
 IPP Rev:D 08-07-28 add chemical conversion coat DD verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

D2622-120C

Manufactured

No

100

Each

115.7300

1

4

D2622-120C

Step Extrusion

**

Al 12.03.15

Location

Loc Qty

Loc Code

HALL

16.37

46910

2

64409

6

66970

7.7

68293

0.25

72131

0.42

WA013

99.36

75781

10.4

77612

88.96

D2734

Manufactured

No

140

Each

83.0000

2

D2734

Step End Plate

**

(x4)

12.03.19

Location

Loc Qty

Loc Code

WA

83

76985

83

D3560-042

Manufactured

No

140

Each

0.0000

1

4

D3560-042

Arm Weldment

**

6

12.03.16

B 79084 = 3

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

February-15-12 3:35:55 PM

Page 2

Work Order ID: 80266

80266

Parent Item: D3562-042

D3562-042

Parent Item Name: Step Assembly, RH

Start Date: 15/02/2012

Required Date: 29/02/2012

Start Qty: 4.00

Required Qty: 4.00

D3560-044

Manufactured

No

140

Each

1.0000

1

4

**

12.03.16

D3560-044

Arm Weldment

Location

Loc Qty

Loc Code

WA013

79088
71950

1

1

3

MS20600-AD4W5

Purchased

No

160

Each

1,097.000

32

128

**

12.03.16

MS20600-AD4W5

Blind Rivet

Location

Loc Qty

Loc Code

ST321

804

114382

173

117505

5

118384

226

120142

100

120594

300

96

WA018

293

111477

6

120570

287

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NOTE: Date & initial all entries

D3562-1, MAKE FROM EXTRUSION D2622

D3560-043 ARM WELDMENT

D3560-041 ARM WELDMENT

D3560-044 ARM WELDMENT

D3560-042 ARM WELDMENT

D3562-1, MAKE FROM EXTRUSION D2622

2
APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS

2
APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS

TRANSFER DRILL #30 DEBURR & TOUCH UP HOLES WITH CHEMICAL CONVERSION COAT BEFORE RIVETING (32 PLACES PER STEP)

REFER TO STEP END DETAIL

INSTALL MS20600AD4W5 RIVET (32 PLACES PER STEP)

MEASURED BEFORE END CAPS WELDED IN PLACE

MEASURED BEFORE END CAPS WELDED IN PLACE

FWD

FWD

ROUND CORNER OF EXTRUSION TO MATCH BEND RADIUS OF END PLATE

NOTE: ALL WELDS SHALL BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004

D2734 END PLATE (TYP 2 PLACES)
TYPICAL STEP END DETAIL
SCALE 1:2

D3562-041 LH STEP ASSEMBLY

D3562-042 RH STEP ASSEMBLY

NOTES:

1) MATERIAL: N/A

2) FINISH:

i) CHEMICAL CONVERSION COAT STEP EXTRUSION

PER DART QSI 005 4.1 BEFORE ASSEMBLY

ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR

GREY SANDTEX (4.3.5.6) OR

BLACK SANDTEX (4.3.5.7) OR

GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3

iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT: 8.79 lbs

8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.

9) WELDING: PER DART QSI 004

WORK ORDER
NO 80266 M.C.J
12/02/16

| QTY -041 | QTY -042 | P/N | DESCRIPTION |
|----------|----------|--------------|------------------|
| X | | D3562-041 | LH STEP ASSEMBLY |
| | X | D3562-042 | RH STEP ASSEMBLY |
| 1 | | D3560-041 | ARM WELDMENT |
| 1 | | D3560-042 | ARM WELDMENT |
| 1 | | D3560-043 | ARM WELDMENT |
| 1 | | D3560-044 | ARM WELDMENT |
| 32 | 32 | MS20600AD4W5 | RIVET |
| 2 | 2 | D2734 | END PLATE |

| | | | |
|------------|---|--|--------------|
| E | ADD QTY (2) TO D2734 END PLATE ON D3562-042 | PH | 08.01.11 |
| D | REMOVE D2808 SPACER NOTE; REDRAWN IN SOLIDWORKS | DC | 07.11.16 |
| C | NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS | CP | 07.06.19 |
| B | ARMS NOW RIVETED TO STEP | CP | 07.01.15 |
| A | NEW ISSUE | CP | 06.09.26 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | 97 | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWN | 84 | | |
| CHECKED | 16 | DRAWING NO. | REV. E |
| MFG. APPR. | 14 | D3562 | SHEET 1 OF 1 |
| APPROVED | 14 | TITLE | SCALE |
| DE APPR. | 14 | STEP ASSEMBLY | 1:5 |
| DATE | 08.01.11 | COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | |

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